

LUPTON PROJECTED SASH

FOR OFFICES, SCHOOLS AND COMMERCIAL BUILDINGS

DAVID LUPTON'S SONS CO.

Philadelphia

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LUPTON PROJECTED WINDOWS

Catalogue No. 12
Projected Window Chapter



Revised to August 1, 1927

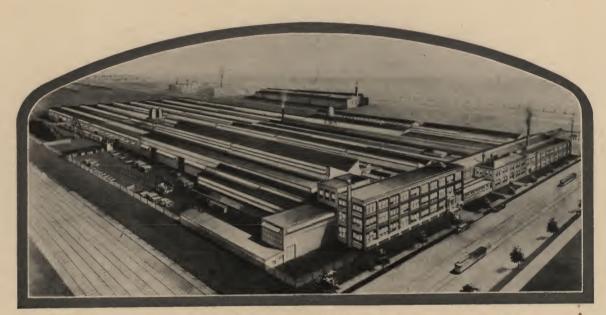
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DAVID LUPTON'S SONS COMPANY

Allegheny Avenue and Tulip Street

PHILADELPHIA

Branch offices, agents and dealers in principal cities



The Lupton Plant, Philadelphia, established 1871. Eleven acres of floor space are devoted to the manufacture of quality steel products, including Windows of all types, Shelving, Bins, Display Counters and Factory Equipment.

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David Lupton's Sons Company

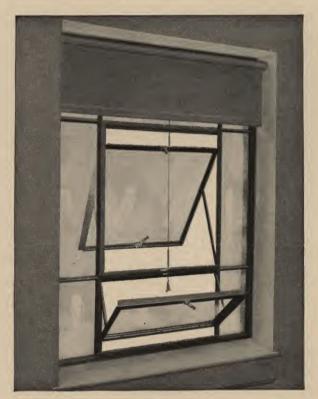
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Lupton Projected Windows

LIPTON PROJECTED WINDOWS embody three distinct features which are responsible for their rapidly increasing popularity. First, the large ventilators project beyond the window line, leaving the floor space adjacent to the wall



A typical Lupton Projected Window, Architectural Type, with the large ventilator opening out and the smaller one opening in.

practically unobstructed for passage-ways or other occupancy; second, the ventilators stay open automatically in any position; and third, the ventilators form a readily shaded awning of steel and glass.

The close fit of the ventilators in Lupton Projected Windows, their easy action, and the protection from rain that they give when open, are also highly desirable qualities of this style of window.

Lupton Projected Windows are particularly applicable to schools, hospitals and office

buildings where good light and ventilation with the minimum of direct draft must be economically provided.

Lupton was the first to originate and manufacture a steel window with the projected movement. This was in 1911. Every significant improvement since that time has also been originated by Lupton, and today all such improvements are incorporated in Lupton Projected Windows. As a result these windows in both the Architectural and Commercial types are now offered to the public as the best windows in their field.

The many types of buildings in which they are used as shown in this catalogue, prove their wide serviceability. Every detail of construction has been so perfected that the finished product is one suitable to most any business building. Our recommendations on any of your window requirements will be freely given.



Close-up showing method of operating the ventilators. The friction shoe slides down as the bottom of the ventilator moves out, the adjustment being such that the ventilator stays securely in any position.

Architectural Projected Windows

Construction

Frame members, Section 376, are of heavy one-piece solid steel, with the corners riveted and arc welded on the inside shoulder and pivot. By its shape, the Lupton frame member provides for sufficient anchorage in the masonry and a good surface for plaster finish.

See page 7 for full size sections.

The corners of the ventilators are riveted and arc welded on the inside shoulder. Ventilators are balanced on a pair of swinging arms, with a bronze friction shoe at each of the sliding corners, backed by a compression spring. In "out-at-bottom" ventilators, the bottom edge of the ventilator swings out as the top edge moves downwards, the top corners being guided by the frame. The "in-attop" ventilators move in just the opposite way, the top edge swinging in as the bottom edge moves upward. With this construction, the ventilators are securely held in any position by friction, without the use of fasteners or adjusters.

In Architectural Projected Windows, large single light ventilators always project outside the plane of the window. Small ventilators at the bottom of the units, where they occur, project "in-at-the-top." See standard sizes,

pages 8 and 9.

Mullions

Two or more units may be combined for use in the same opening by using the Lupton Mullion shown in detail on page 13. When figuring opening sizes where mullions are to be used, add the dimensions of the windows together, and to this, add 2 inches for each mullion used. By its design, the Lupton Mullion serves as a cover as well as a mullion.

Glass Sizes

Tables of standard sizes on pages 8 and 9 are based on stationary lights of glass, and glass sizes are so given. Glass in ventilators is 2 inches less both in height and width.

Glazing

Glass is held by standard Lupton Glazing Angles, bedded in putty. These angles give added finish to the windows and are held in place by round head steel screws.

Hardware

Lupton Architectural Projected Windows are always furnished with bronze hardware as a standard. This hardware is of a striking design and finish, and is in keeping with the high quality of the windows. Cam handles are regularly furnished with both types of ventilators, which are within reach of the floor. Ventilators out of ready reach are operated by standard Lupton ring type cam handles. This condition calls for the use of a pole, the ventilator being opened by releasing the cam handle, inserting the pole in the ring at the top of the ventilator, and then pulling down on the pole.

Shades and Screens

Shades can be very satisfactorily applied to Lupton Architectural Projected Windows, but it must be kept in mind that the shade roller should be located far enough from the windows to give clearance for the hardware. We furnish a special bracket, at an increase in price, to which the shade roller bracket can be attached, when specified. Consult details on page 14 before specifying the shades.

Various styles of screens may be used, but in every case proper clearance must be allowed for the operation of hardware. Screen details are shown on page 23. Neither the shades nor screens are furnished by Lupton, but advice on application is cheerfully given on request.

Underwriters' Labels

Where the ventilators open out, Lupton Architectural Projected Windows can be made to conform to the Underwriters' Specifications. This involves the use of special hardware and larger glazing angles, and limits the glass area. Ventilators which open in cannot be made to bear the Underwriters' Label.

Painting

All Lupton Architectural Projected Windows are painted one coat of Lupton Standard steel window paint, oven dried. They should be given two additional coats after erection.

Erection

This type of steel window should be erected by the window manufacturer.

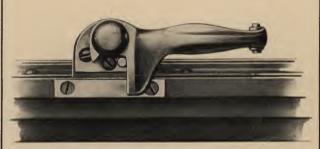
HARDWARE



Bronze Pull Down Ring, used at the top of open-out ventilators, not within easy reach.



Cam Handle (ring type) used at the bottom of ventilators not within reach of the floor.



Cam Handle used on ventilators opening out.

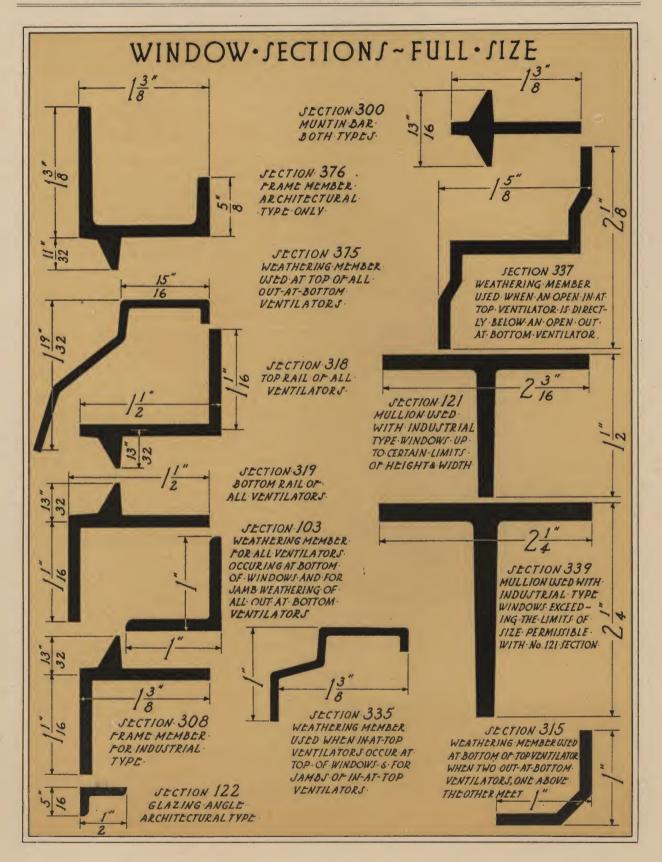


Cam Handle used on ventilators opening in.

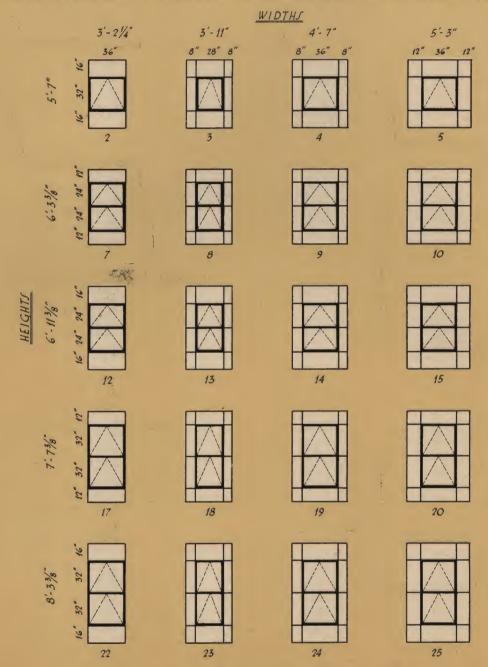
SPECIFICATIONS

Architectural Projected Windows

- 1. All windows, except as otherwise noted on drawings, shall be Lupton Architectural Projected Windows of solid steel, manufactured by David Lupton's Sons Company, Philadelphia.
- 2. All sections shall be of heavy solid steel, the corners of the frame being riveted and, in addition, arc welded on the inside shoulder and pivot, not ground. The use of built-up frame members will not be permitted. Outside frame member shall be a one-piece unequal leg channel section.
- 3. Ventilators shall be balanced on swinging arms, with a bronze friction shoe at each of the sliding corners, backed by a compression spring. The maximum openings of "open-out" ventilators shall be 100°; for "open-in" ventilators, 90°. Ventilators shall remain rigidly open in any position without the use of fasteners or adjusters. Ventilators shall have all four corners riveted and arc welded on inside shoulder, without grinding.
- 4. Glass shall be (state kind and thickness) and shall be held in the window by glazing angles, bedded in putty.
- 5. All hardware shall be bronze, of standard Lupton design, and shall include Cam Handles at bottom of ventilators, and Pull Down Rings for pole hook operation at top of open-out ventilators, when out of reach of floor.
- 6. All windows shall receive one coat of manufacturer's standard paint, oven dried.
- 7. Windows shall be erected by the window manufacturer, under separate contract.



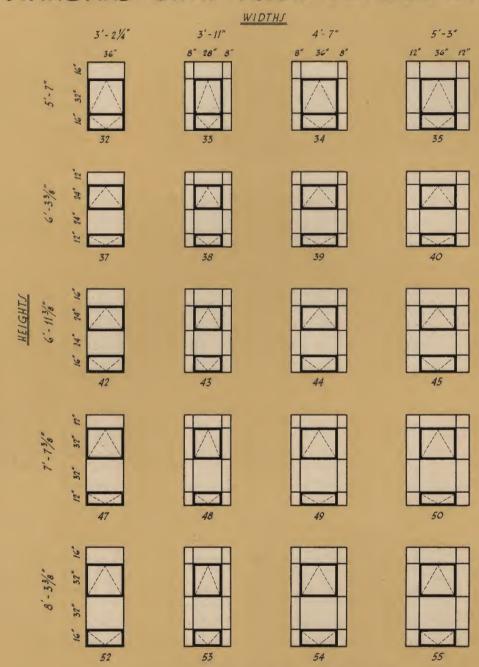
·STANDARD · UNITS · ARCHITECTURAL · TYPE ·



⁻ DIMENSIONS: SHOWN CORRESPOND TO WINDOW DIMENSIONS: SHOWN ON DETAILS

[~]GLASS-SIZES-SHOWN-OCCUR-ONLY IN-FIXED LIGHTS ~ GLASS-IN-VENTILATORS-IS 2"SMALLER-IN-WIDTH&HEIGHT, &...

· STANDARD · UNITS · ARCHITECTURAL · TYPE ·



~DIMENSIONS-SHOWN CORRESPOND-TO-WINDOW-DIMEN-SIONS-SHOWN-ON-DETAILS

~GLASS SIZES SHOWN OCCUR ONLY IN FIXED LIGHTS GLASS IN VENTILATORS IS 2"SMALLER IN WIDTH & HEIGHT



Gulfport High School Gulfport, Miss.

N. W. Overstreet, Architect Algernon Blair, Contractor

This modern school building uses Lupton Architectural Projected Windows, in all wall openings.

Endicott-Johnson Corp. St. Louis, Mo.

Nolte & Nauman, Architects R. W. Morrison Construction Co., Contractors

Lupton Architectural Projected Windows are used in the office portion of this warehouse. Horizontal muntins are used in large ventilator lights and in stationary lights. The bottom ventilator at right shows extreme position for ease of cleaning.





The J. D. Deutsch Company Cleveland, Ohio

S. H. White, Architect

The Super-Built Construction Co. Contractors

Lupton Architectural Projected Windows are used in this funeral parlor. In this installation, the ventilators open in-at-the-top.

ARCHITECTURAL · PROJECTED · WINDOWS -SHADE CORD Control of the second STANDARD UNITS ARE MADE WITH OPEN OUT AT BOTTOM-VENTILATORS. UNITS OF THE SAME SIZE ARE MADE ALSO WITH ONE OPEN IN ATTOP DOTTED LINES SHOW VENTILATOR LOCATED AT SILL AND OUT AT VENTILATORS BOTTOM VENTILATORS ABOVE. THE IN AT TOP REVERSED TO VENTILATOR SERVES AS A WIND DEFLECTOR AND PERMIT CLEANING IS-IDEAL FOR WINTER VENTILATION. THE OUT OUTSIDE SURFACE. AT BOTTOM VENTILATOR S. IN UPPER PART OF OF GLASS FROM INSIDE OF BUILDING UNITS PROVIDE AMPLE VENTILATION FOR WARM DAYS AND DO NOT INTERFERE WITH FREE USE OF SHADES AND SCREENS. MAXIMUM · SIZE · OF · OUT · AT · BOTTOM · VENTI-LATORS-IS-36"WIDE AND . 32"HIGH. IN AT TOP VENTILATORS SHOULD NOT EXCEED 36" WIDE AND 16" HIGH. STANDARD HARDWARE IS BRONZE.

St. Joseph's Parish School Webster, Mass.

> H. S. Ludorf Architect

The T. J. Pardy Constr. Co. Contractors

A New England School Building obtains the necessary light and ventilation by the use of Lupton Architectural Projected Windows. View at right shows a typical classroom in this school.



Yellow Cab Manufacturing Company Chicago, Ill.

Martin C. Schwab, Consulting Engineer



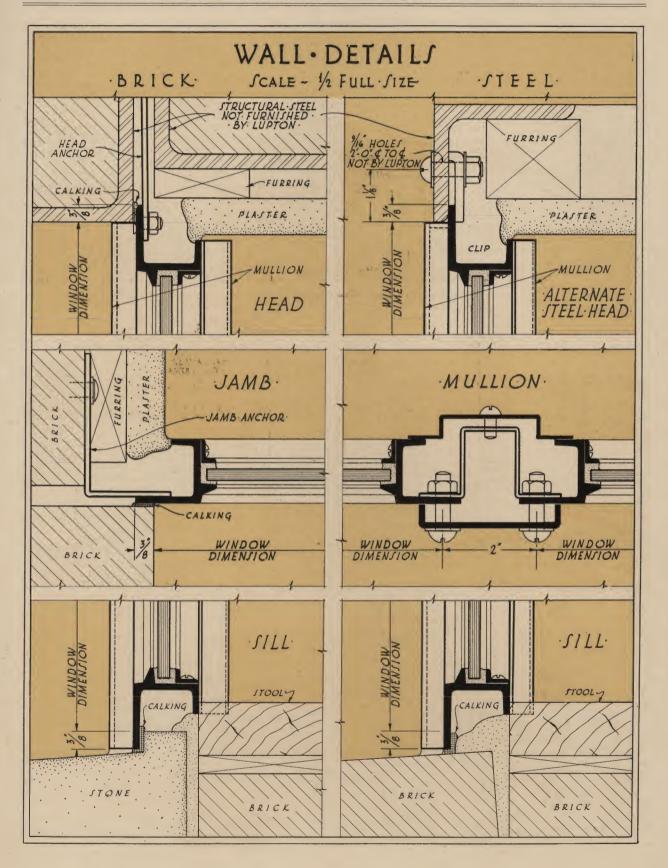
An attractive Cafeteria in which Lupton Architectural Projected Windows are used. In this installation, vertical muntins are used and both ventilators in each unit open out-at-the-bottom.

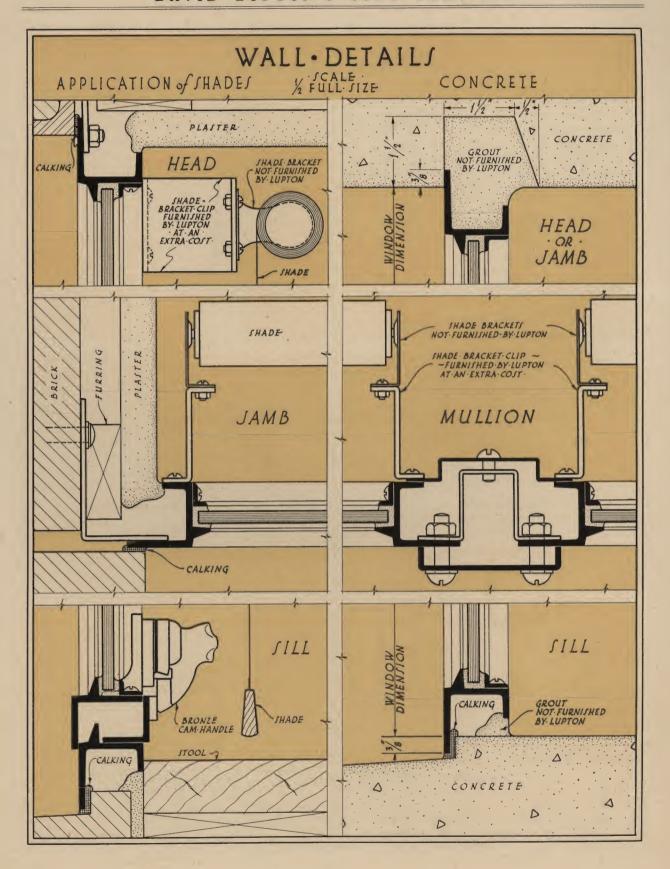


National Geographic Society Washington, D. C. Arthur B. Heaton Architect

Skinker & Garrett Contractors

The new building of this well-known society is equipped throughout with Lupton Architectural Projected Windows. The units in this installation were furnished with muntins.





COMMERCIAL PROJECTED WINDOWS

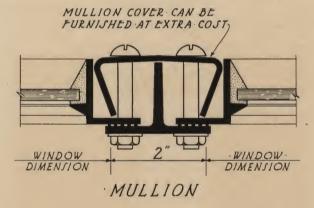
Construction

Window members are the same as are used in Lupton Pivoted Windows, and are of one-piece solid steel. Frame member is an angle (Section No. 308), Muntins are standard Lupton Section No. 300. As compared with Architectural Projected Windows the Commercial Type conforms in glass sizes and dimensions to Lupton Pivoted Windows (described in another catalogue chapter) and has several small lights in the ventilator instead of a single large one.

The ventilators are similar in design and operation, having the same friction shoe as the architectural type, controlling their inward and outward movements.

Mullions

In Commercial Projected Windows, standard Lupton T-Bar Mullions are always used where two or more windows occur in an opening. (See full size sections, page 7.) When figuring opening sizes where mullions are to



be used, add 2 inches for each mullion to the total width of the window. (See detail above.) When specified, we will furnish steel plate covers for the mullions, at an increase in price.

Glass Sizes

Standard glass sizes are 12 x 18 in. and 14 x 20 in. Glass in ventilators is always

reduced in height or width or both because of the weathering. (See Page 17.)

Glazing

Glass is held by glazing clips and putty, four clips being furnished for each light of glass. The clips are sprung into the muntins or frame and their elasticity provides for a solid bearing against the glass without breaking it.

Hardware

Malleable iron hardware is regularly furnished as standard with Lupton Commercial Projected Windows. Method of using the hardware is the same as for Architectural Projected Windows.

Shades and Screens

The same general recommendations for Lupton Architectural Projected Windows apply to the Commercial Projected Windows. Details on page 23 should be referred to. Shades and Screens are not furnished by Lupton, but details of application will be cheerfully given on request.

Underwriters' Labels

Lupton Industrial Projected Windows (open out vents only) will be furnished to bear Underwriters' Labels when so specified and at an increase in cost.

Painting

All windows are painted one coat of Lupton standard paint, oven dried. They should be given two additional coats after erection.

Erection

Lupton Industrial Projected Windows may be erected by Lupton or others.

HARDWARE



Malleable Iron Pull Down Ring at the top of ventilators out of ready reach, requiring the use of a pole.



Malleable Iron Cam Handle for all ventilators opening out-at-bottom.



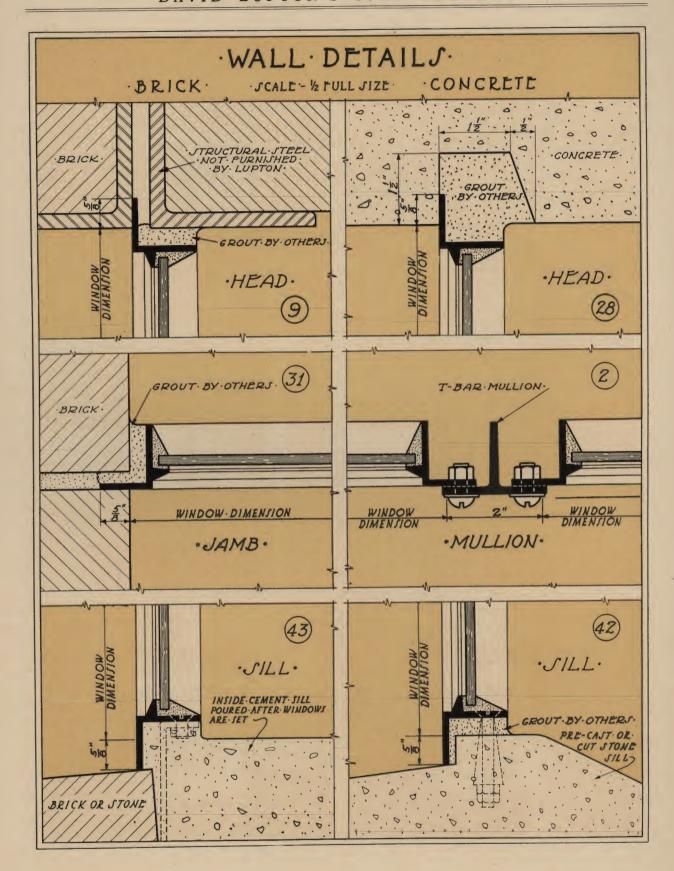
Malleable Iron Cam Handle with straight grip, for all ventilators opening in-at-top.

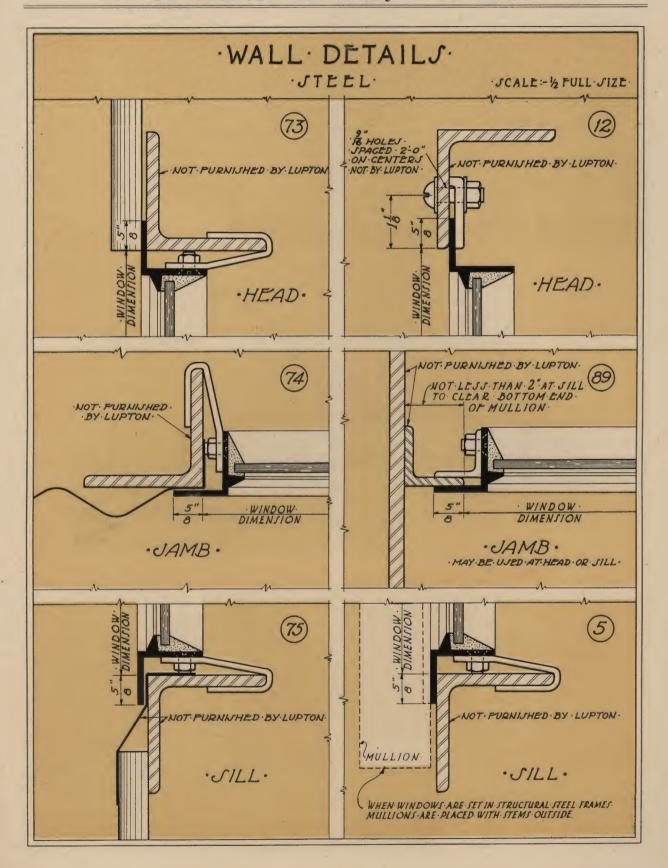
SPECIFICATIONS

Commercial Projected Windows

- All windows, except as otherwise noted on drawings, shall be Lupton Commercial Projected Windows of solid steel, manufactured by David Lupton's Sons Company, Philadelphia.
- 2. All sections shall be of low carbon steel, of standard Lupton shape. Outside frame member shall be angle section, No. 308, the corners of which shall be riveted.
- 3. Ventilators shall be balanced on swinging arms, with a bronze friction shoe at each of the upper corners, backed by a compression spring. The maximum opening of out-at-bottom ventilators shall be 100°, in-at-top ventilators 90°. Ventilators shall remain open in any position without the use of fasteners or adjusters. In ventilators up to and including six lights, the two corners to which the friction shoes are riveted shall be arc welded on the inside shoulder, not ground.
- 4. Glass shall be (state kind and thickness) and shall be held in the windows by standard Lupton Glazing Clips, four to each light.
- 5. All Hardware shall be malleable iron of standard Lupton design, and shall include ringtype Cam Handles for ventilators opening out-at-bottom and Pull Down Rings for pole hook operation for same ventilators out of ready reach. In-at-top ventilators shall have straight grip Cam Handles.
- 6. All windows shall receive one coat of manufacturer's standard paint, oven dried.
- 7. Windows shall be erected by window manufacturer or others (state which).

STANDARD • UNITS • COMMERCIAL • TYPE • WIDTHS								
2 LIGH 12"x18"GLASS 2'-15'8 14"x20"GLASS 2'-55'8	" 3'-2"	3 LIGHTS 4 LIGHTS 3'-2' 4'-23%"		5 LIGHTS 5'-23/4" 6'-03/4"				
3-15% 3-15% 3-5%	32160		42140		52160	,		
2.7.5 2.7.5 23141	33161		43141	·	53161	i		
4 LIGHTS 6-23% 6-10%	34161	3423602	44141	4422402	54161		5423602	
SLIGHTS SLIGHTS 7-8% 8-6%	35161 35162	3523602	45141	4522402	55161	55162	5523602	
6 LIGHTS 9-3% 10-3%	36161 362360	3 362614	46141	4622403	56161	5623603	562614	
7 119HTS 12ASS 10'-91/2"		372614	-				572614	
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St. Thomas Aquinas School Toledo, Ohio

Comes, Perry & McMullen Architects

C. A. Degner, Contractor

A pleasing school building design, with Lupton Commercial Projected Windows, used throughout to insure good lighting and ventilation.

Illinois Electric Company Los Angeles, Cal. Noerenberg & Johnson, Architects Robert E. Millsap, Contractor

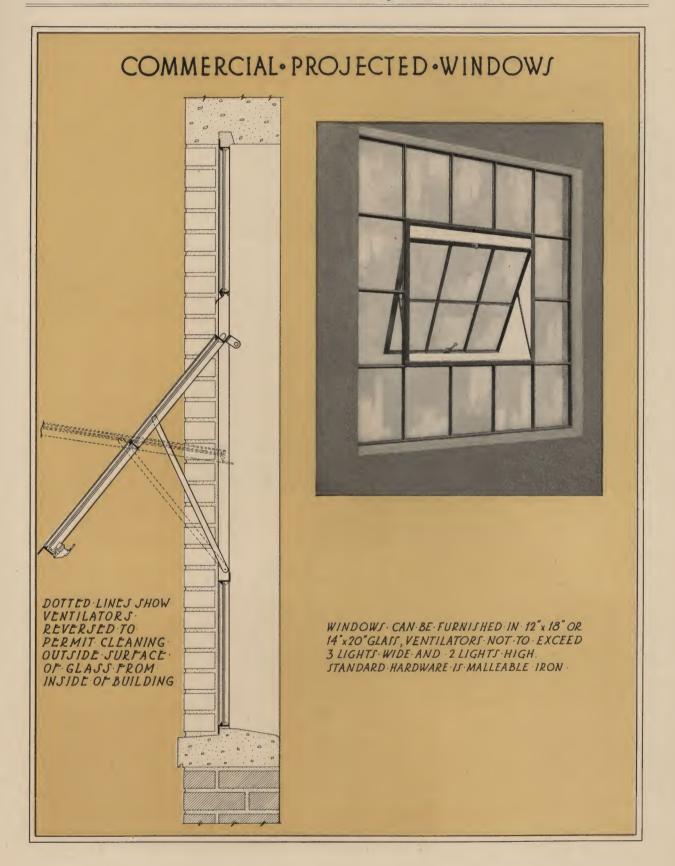
A combination of Lupton Commercial Projected Windows and Lupton Pivoted Windows in this four-story building. The Projected Windows are used in the second floor openings.



R. J. Ederer Thread Company Frankford, Philadelphia, Pa. Wm. Steele & Sons Company Engineers and Constructors

This manufacturing building uses Lupton Commercial Projected Windows in all openings except those in the office portion on the first floor, where Lupton Double Hung Windows of galvanized steel were specified. Cross Muntins are used in the latter to match the appearance of the Projected Windows.





Campbell Soup Company Camden, N. J.

Wm. Steele & Sons Company Engineers and Constructors

Lupton Commercial Projected Windows are shown in the factory portions on the four lower floors and part of the fifth and sixth floors. Lupton Double Hung Windows of galvanized steel are used in the other openings.

> Miss Bright's School Chattanooga Tenn. R. C. Hunt

R. C. Hunt Architect Mark K. Wilson Contractor

This installation shows Lupton Commercial Projected Windows with the smaller ventilators opening "in-at-thetop."

Consolidated Gas, Electric Light & Power Company Baltimore, Md.

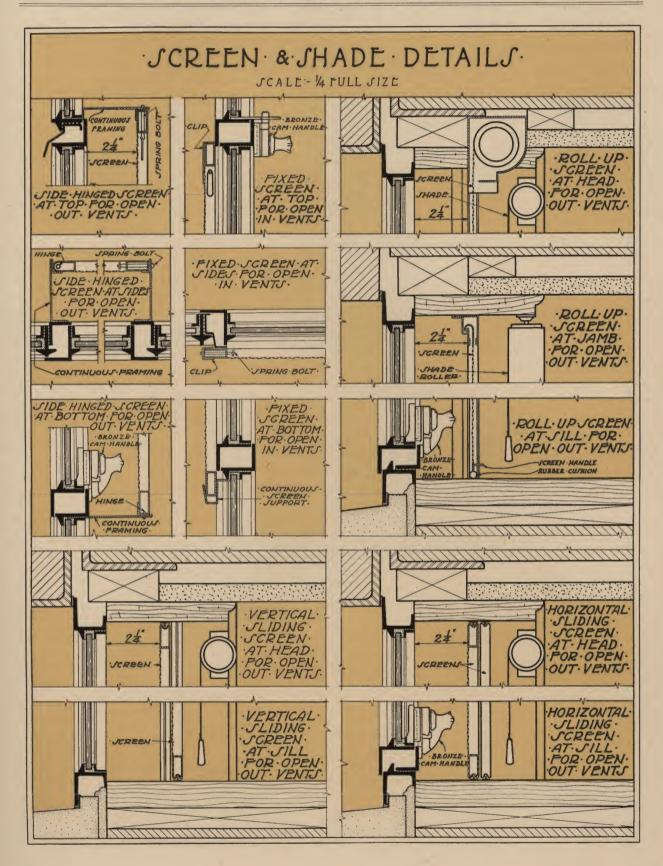
A building of massive design, with Lupton Commercial Projected Windows used in all sidewall openings.

Kentucky State University Lexington, Ky.

A. O. Whipple, Architect

Blanchard Bldg. Co., Contractors

This is the athletic building, the Lupton Commercial Projected Windows in large sidewall openings having circle heads.



OTHER LUPTON PRODUCTS

Lupton Pivoted Windows



The standard and accepted steel window for factories, stores, garages, warehouses and all sorts of business buildings. Rigidly built of solid rolled steel sections. Made in 20 stock sizes for immediate shipment.

Lupton Operating Device

A device designed on the torsion principle which gives efficient control of sidewall pivoted windows in medium length runs. May be equally well applied to existing steel or wood windows. Manual operation.



Lupton Counterbalanced Windows



These windows make balanced ventilation automatic. When the lower window is opened, the upper window lowers an equal distance, thus providing an entrance for fresh air and an exit for exhausted air at the same time.

Lupton Double Hung Windows

A practical, good-looking, easymoving window for office buildings, hotels and apartments. Weather-tightness is assured by the carefully designed construction of galvanized steel plate. Low cost is due to quantity production.



Lupton Residence Casement Windows



Made from one-piece copper steel members, with extended hinge which permits cleaning both sides of the glass from within the room. We also make Steel Basement Windows.

Pond Continuous Windows

This window forms a transparent weather-protecting shelter over a continuous opening, and gives remarkable efficiency in the natural lighting and ventilation of industrial buildings. Long runs are readily controlled by Pond Operating Device.



Pond Operating Device



Employing the tension principle, Pond Operating Device has no equal for operating runs of top hung windows or large groups of pivoted windows. Free from useless stresses. Gives efficient mass control and exceptionally long service.

Lupton Casements HEAVY TYPE



The highest grade steel windows for banks, libraries, clubs, office buildings or fine residences. They are made in six standard types, and can be furnished to suit any size or shape of opening.

Lupton Commercial Steel Doors

Modern doors for every commercial and industrial purpose. They are made of heavy sheet steel, built-up and spot-welded at vital points. Furnished in standard sizes in both Hinged and Sliding types.



Lupton Industrial Steel Doors



Ideal for the inside and outside doors of factories, powerhouses, warehouses and other industrial buildings where great strength and rigidity are required. They are made from seamless steel tube, oxy-acetylene welded throughout.

Lupton Steel Partition

Lupton Steel Partition is strong, rigid, and dignified in appearance. Bolted construction makes it readily removable in units. Interchangeability is assured by standard heights and widths of units. Easy to keep clean.



Lupton Rolled Steel Skylight



Built to stand severe service. Glass is held between strips of specially treated fibre, eliminating breakage due to vibration and wide range of temperature. The cap is either of copper or galvanized steel, the bar of steel.

Lupton Steel Shelving

A type suited to every storage requirement. Storage Shelving for mills; Display and Unit Shelving for stores and offices; Racks for special requirements; all cut maintenance costs, conserve floor space and simplify store keeping.



Lupton Steel Factory, Store and Office Equipment

Lupton Factory Equipment solves the problems of commercial furniture. Made of smooth, durable steel, Lupton Shop Desks, Bench Legs, Bench Drawers, Tool Cabinets, Steel Cabinets Display Counter, etc., give lasting investment value. Easily kept clean.

